IN THE CLAIMS

Please amend the claims as follows:

1 (Currently Amended): A stage unit having a movable stage comprising:

a driver that includes a mover and a stator to drive the movable stage; and

a reaction canceling mechanism that applies to the stator a force to cancel a reaction acting on the stator due to driving of the mover by an electromagnetic interaction, at least a part of the reaction canceling mechanism being disposed above the stator.

2 (Original): The stage unit according to claim 1, wherein the reaction canceling mechanism generates forces, which cancel the reaction as a whole, in at least two points of the stator.

3 (Original): The stage unit according to claim 2, wherein the reaction acting on the stator and the forces generated in at least two points are along a plane.

4 (Previously Presented): The stage unit according to claim 2, wherein the reaction canceling mechanism generates forces, which cancel the reaction as a whole and have respective predetermined directions, in at least three points of the stator.

5 (Original): The stage unit according to claim 1, wherein the driver generates a driving force of the mover by an electromagnetic interaction.

6 (Original): The stage unit according to claim 5, wherein

the stator comprises an armature unit including a plurality of armature coils that are arranged in the shape of a matrix and have current paths almost parallel to the predetermined

plane, and

the mover comprises a driving magnetic pole unit that generates a magnetic flux having a direction that cross the predetermined plane.

7 (Currently Amended): The stage unit according to claim 6, wherein the reaction canceling ~~magnetic pole unit~~ mechanism comprises

reaction canceling magnetic pole units that generate magnetic fluxes crossing the current paths of armature coils arranged on the four corners of the armature unit; and

a control system that controls the directions and amplitudes of currents supplied to the armature coils arranged on the four corners of the armature unit.

8 (Original): The stage unit according to claim 7, wherein the reaction canceling magnetic pole units and the stator are mechanically independent of each other.

9 (Previously Presented): The stage unit according to claim 7, wherein the reaction canceling magnetic pole units generate forces perpendicular to one another on the neighboring corners of the armature unit.

10 (Currently Amended): The making method of a stage unit having a movable stage comprising the steps of:

providing a driver including a mover and a stator to drive the movable stage; and

providing the reaction canceling mechanism that applies a force to cancel the reaction acting on the stator due to driving of the mover to the stator by an electromagnetic interaction, at least a part of the reaction canceling mechanisms being disposed above the stator.

11 (Currently Amended): A stage unit comprising:

an armature unit that includes a plurality of armature coils, which are arranged in the shape of a matrix and have current paths almost parallel to the predetermined plane;

a magnetic pole unit that has a plurality of magnets magnetized in directions not perpendicular to the predetermined plane and two-dimensionally generates an alternating magnetic field with a period of 4P/3 in two axis-directions perpendicular to each other, between the armature coils and itself, practically without generating any magnetic field in an area opposite to the armature unit, P of the 4P/3 being a coil module width; and

a current driver that moves the magnetic pole unit relatively to the armature unit in a plane parallel to the predetermined plane by supplying currents to the respective armature coils.

12 (Original): The stage unit according to claim 11 further comprising:

a magnetic member supporting the armature coil in a side opposite with the magnetic pole unit.

13 (Original): The stage unit according to claim 11 further comprising:

a flat-plate-like shaped member that is placed between the armature unit and the magnetic pole unit and made of a non-magnetic material.

14 (Original): The stage unit according to claim 11, wherein the current driver supplies currents to the respective armature coils independently.

15 (Previously Presented): The stage unit according to claim 11 further comprising:

a position detection system that detects the positional relation between the magnetic

and the armature unit; and

a controller that controls at least one of the value and direction of currents supplied to the respective armature coils via the current driver according to the detection results of the position detection system.

16. (Original): The stage unit according to claim 15, wherein the control selectively supplies currents only to the armature coils opposite with the magnetic pole unit.

17 (Currently Amended): The making method of a stage unit comprising the steps of:

providing an armature unit that includes a plurality of armature coils, which are arranged in the shape of a matrix and have current paths almost parallel to the predetermined plane;

providing a magnetic pole unit that has a plurality of magnets magnetized in directions not perpendicular to the predetermined plane and two-dimensionally generates an alternating magnetic field with a period of 4P/3 in two axis-directions perpendicular to each other, between the armature coils and itself, practically without generating any magnetic field in an area opposite to the armature unit, P of the 4P/3 being a coil module width; and

providing a current driver that moves the magnetic pole unit relatively to the armature unit in a plane parallel to the predetermined plane by supplying currents to the respective armature coils.

18 (Original): The making method of a stage unit according to claim 17 further comprising the steps of:

providing a position detection system that detects the positional relation between the magnetic and the armature unit; and

providing a controller that controls at least one of the value and direction of currents supplied to the respective armature coils via the current driver according to the detection results of the position detection system.

19 (Previously Presented): An exposure apparatus that transfers a predetermined pattern onto a wafer by irradiating an energy beam and exposing the wafer, comprising:

a stage unit according to claim 1 as the position controller to control the position of the wafer.

20-21 (Canceled)

22 (Previously Presented): An exposure apparatus that transfers a predetermined pattern onto a wafer by irradiating an energy beam and exposing the wafer, comprising:

a stage unit according to claim 11 as the position controller to control the position of the wafer.

23 (Canceled)

24 (Currently Amended): The making method of an exposure apparatus that transfers a predetermined pattern onto a wafer by irradiating an energy beam and exposing the wafer, comprising the steps of:

making a stage unit by providing an armature unit including a plurality of armature coils that are arranged in the shape of a matrix and have current paths almost parallel to the predetermined plane; a magnetic pole unit that has a plurality of magnets magnetized in directions not perpendicular to the predetermined plane and two-dimensionally generates an

alternating magnetic field with a period of 4P/3 in two axis-directions perpendicular to each other, between the armature coils and itself, practically without generating any magnetic field in an area opposite to the armature unit; and a current driver that moves the magnetic pole unit relatively to the armature unit in a plane parallel to the predetermined plane, P of the 4P/3 being a coil module width; and

placing the stage unit as the position controller that controls the position of the wafer.

25 (New): An exposure apparatus that transfers a pattern onto a first wafer by irradiating an energy beam and exposing the first wafer, comprising:

a first wafer stage that holds the first wafer;

a driver having a stator and a mover coupled to the first wafer stage to drive the first wafer stage; and

a reaction canceling system that applies to the stator an electromagnetic force to cancel a reaction force acting on the stator due to driving of the mover, at least a part of the reaction canceling system being disposed above the stator.

26 (New): The exposure apparatus according to claim 25, wherein the driver is a planar motor.

27 (New): The exposure apparatus according to claim 25, further comprising:

a second wafer stage that holds a second wafer.

28 (New): The exposure apparatus according to claim 25, wherein the mover comprises a magnet member.

29 (New): The exposure apparatus according to claim 25, wherein the mover comprises a magnet member without a yoke member.

30 (New): An exposure apparatus that transfers a pattern onto a first wafer by irradiating an energy beam and exposing the first wafer, comprising:

a first wafer stage that holds the first wafer;

a driver having a stator and a mover coupled to the first wafer stage to drive the first wafer stage; and

a reaction canceling system that applies to the stator an electromagnetic force to cancel a reaction force acting on the stator due to driving of the mover, the reaction canceling system cooperating with the stator to generate the electromagnetic force.

31 (New): The exposure apparatus according to claim 30, wherein the driver is a planar motor.

32 (New): The exposure apparatus according to claim 30, further comprising a second wafer stage that holds a second wafer.

33 (New): The exposure apparatus according to claim 30, wherein the mover comprises a magnet member.

34 (New): The exposure apparatus according to claim 30, wherein the mover comprises a magnet member without a yoke member.